
GODDARD SPACE FLIGHT CENTER

300 **DIRECTOR OF SYSTEMS SAFETY & MISSION ASSURANCE**

Has the broad responsibility and general authority to review the technical and flight safety aspects of all GSFC projects, spacecraft systems, launch vehicle systems, operational ground systems and scientific instruments for both conventional satellites and Shuttle payloads to assure that the systems meet the Center's goals for mission success and reliability. Provides leadership and guidance to GSFC managed space flight programs by formulating general policy in the areas of quality assurance, materials control, parts control, environmental testing, reliability, software assurance, and flight safety. Provides support to GSFC projects in implementing the flight assurance program.

301 **SYSTEMS REVIEW OFFICE**

Plans and implements a series of design and flight readiness reviews of the technical and flight safety aspects of all GSFC projects, spacecraft systems, launch vehicle systems, operational ground systems and scientific instruments for both conventional satellites and Shuttle payloads. The objective of the review program is to provide the Director, GSFC, assurance that the systems meet the Center's goals for mission success and reliability. The Office is staffed with a small cadre of the Center's more experienced technical specialists and has full authority to draw heavily on technical experts in any of the Center's functional and project organizations. Organizes and provides the Center's technical support to other Government agencies such as the FCC and FAA on communications satellites.

302 **SYSTEM RELIABILITY AND SAFETY OFFICE**

Formulates the requirements and policies necessary for the development and verification of safe, reliable space systems. Establishes test and design factors of safety, test levels, and durations at appropriate levels of assembly and related analytical requirements. Coordinates and disseminates these policies and requirements within the Center and represents the Center in the verification and system safety disciplines to outside organizations. Promulgates criteria by publication of Centerwide general test specifications and systems safety guidelines. Maintains expertise required to review and approve all general and project unique environmental test specifications. Reviews and approves analytical verification used in conjunction with test or in lieu of tests. Formulates software assurance requirements and provides support for monitoring their implementation design and reviews and audits. Provides software assurance expertise for consultation with products and the Flight

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Assurance Managers (FAMs). Serves as the GSFC point of contact with NASA Headquarters on software assurance matters.

Establishes reliability requirements and provides technical expertise for review of project reliability implementation. Compiles and analyzes performance data from flight and test for the purpose of determining the Center's overall reliability record and improving the effectiveness of the flight assurance programs. Conducts research to assure that flight assurance goals are achieved in the most effective combination of cost and risk. Specifies measurements necessary to provide data for definition of the launch and space environments and performs appropriate interpretation of the resulting data as required.

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ASSURANCE MANAGEMENT OFFICE

Establishes, coordinates, and manages the implementation of the assurance program for all flight projects, instruments, and ground systems organizations. Provides the primary interface between the Office of Flight Assurance (OFA) and these organizations by assigning collocated FAMs and Assurance Engineers. Negotiates resources for and acquires and manages support from the OFA elements in parts, materials and processes, reliability, software assurance environmental test verification, and design reviews. Ensures that the requirements of the NASA and GSFC management documents pertaining to the assurance function become an integral and effective part of each project plan and procurement activity, and that cognizant inspections comply with requirements.

Prepares the assurance supplement of the Letter of Delegation to the Government Inspection Agency (GIA) for assigned assurance inplant representatives detailing specific functions to be performed by them. Approves contractor and GIA assurance plans, provides overall management and direction for performance of these plans, and resolves disagreements between contractors and the GIA personnel. Assesses the hardware quality status and reports to project and OFA management on status and problems. Provides feedback to the OFA on the effectiveness of the assurance program, as practiced, and makes appropriate recommendations. Maintains the GSFC Reliability and Quality Assurance Handbook. Reviews appropriate policy documents prepared by NASA

Headquarters and prepares Center responses as requested. Serves as the GSFC interface with NASA Headquarters, other field centers, other government agencies (U.S. and foreign), and contractors on assurance management policy, manpower, and implementation.

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